

**EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Attorney of record Daryl K. Neff on December 18, 2007.

The application has been amended as follows:

Amend claims 1, 3-6, 11, 12, 14, 16-18 and 34 as shown below.

Cancel claims 33 and 35.

**It should be noted that the purpose of this supplemental examiner's amendment is to change the dependency of claim 34 to depend on claim 1 instead of claim 33, as was shown in the previous examiner's amendment. No other changes have been made.**

1. (currently amended) A system for detecting a fault in a transmission link, comprising: a reference level generator operable to output a reference level selectable according to one of a direct current (DC) mode threshold and an alternating current (AC) mode threshold, wherein the DC mode threshold is a fixed potential and the AC mode threshold varies with time; and a comparator operable to detect the crossing of the reference level by an input signal arriving from the transmission link, the comparator having a degree of hysteresis selectable in response to a second signal input to the comparator other than the input signal arriving from the transmission

link.

3. (currently amended) A system as claimed in claim 1, wherein said reference level generator is operable to can be operated to selectively switch between outputting a lower threshold and an upper threshold as the DC mode threshold, wherein said comparator is operable can be operated to detect a crossing of the upper threshold and to detect a crossing of the lower threshold.
4. (currently amended) A system as claimed in claim 3, wherein said comparator detects can be operated to detect a falling crossing of the lower threshold and detects detect a rising crossing of the upper threshold.
5. (currently amended) A system as claimed in claim 4, wherein said reference level generator further comprises a multiplexer and said multiplexer can be operated operable to select between outputting the DC mode threshold and the AC mode threshold.
6. (currently amended) A system as claimed in claim 1, wherein said reference level generator includes a low-pass filter coupled to the input signal and is operable to , wherein said low-pass filter can be used to generate the AC mode threshold from the input signal.
11. (currently amended) A system as claimed in claim 1, wherein said system is operable can be operated to detect a short-circuited capacitor in an AC coupled transmission link when said comparator fails to detect a crossing of the DC mode threshold by the input signal.
12. (currently amended) A system as claimed in claim 1, wherein said reference level generator is operable can be operated to output a first level of the AC mode threshold, wherein said comparator is operable can be operated to detect a falling crossing of the first level and said reference level generator is operable can be operated to output a second level of the AC mode threshold higher than the first level, wherein said comparator is operable can be operated to

detect a rising crossing of the second level.

14. (currently amended) A system as claimed in claim 12 wherein said reference level generator is further operable can be operated to vary the reference level between the first level and the second level in response to feedback from said comparator.

16. (currently amended) A system as claimed in claim 1, wherein said comparator is operable can be operated to detect a falling crossing of the reference level when the input signal reaches a first value and is operable can be operated to detect a rising crossing of the reference level when the input signal reaches a second value, wherein the separation between the first value and the second value is adjustable according to a setting of said comparator.

17. (currently amended) A system as claimed in claim 1, wherein said reference level generator is operable can be operated to maintain the DC mode threshold at a substantially constant level, wherein said comparator is operable can be operated to detect a falling crossing of the DC mode threshold and to detect a rising crossing of the DC mode threshold at substantially the same level of the input signal.

18. (currently amended) A method of detecting a fault in a transmission link, comprising: providing a reference level selectable according to one of a direct current (DC) mode threshold and an alternating current (AC) mode threshold, wherein the DC mode threshold is a fixed potential and the AC mode threshold varies with time; and comparing an input signal arriving from the transmission link with one of the DC mode threshold and the AC mode threshold to determine whether a fault is present in the transmission link, said comparing being performed with different degrees of hysteresis depending upon a value of a second signal.

34. (currently amended) The system as claimed in claim 331, wherein the second signal is

represented by multiple digital bits, the system further comprising a digital-to-analog converter operable which can be operated to convert the second signal to an analog second signal having multiple different levels and the comparator is operable can be operated with different degrees of hysteresis in accordance with the multiple different levels of the analog second signal.

2. The following is an examiner's statement of reasons for allowance: claims 1-7, 9, 11-24, 31, 32 and 34 are considered to be allowable due to the inclusion of claim limitations: "the comparator having a degree of hysteresis selectable in response to a second signal input to the comparator other than the input signal arriving from the transmission link" in claim 1; and "said comparing being performed with different degrees of hysteresis depending upon a value of a second signal" in claim 18. Claims 2-7, 9, 11-17, 19-24, 31, 32 and 34 are considered to be allowable due to their dependence on claims 1 and 18.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy J. Dole whose telephone number is (571) 272-2229. The examiner can normally be reached on Mon. thru Fri. from 8:00 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Hirshfeld can be reached on (571) 272-2168. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/T. J. D./  
Examiner, Art Unit 2858

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